

08-09-01

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1093 U.S. PTO

**UTILITY PATENT APPLICATION TRANSMITTAL
(Large Entity)**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.
PRO-107.2

Total Pages in this Submission

TO THE ASSISTANT COMMISSIONER FOR PATENTSBox Patent Application
Washington, D.C. 20231

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**PYROPHOSPHOROLYSIS AND INCORPORATION OF NUCLEOTIDE METHOD FOR NUCLEIC ACID
DETECTION**

and invented by:

John W. S hultz
407 Melody Lane
Verona, Wisconsin 53593
USRyan J. Olson
8551 Greenway Blvd., #310
Middleton, Wisconsin 53562
USChristine Andrews
800 Whispering Way
Cottage Grove, Wisconsin 53527
USjc973 U.S. PTO
09/924981
08/07/01If a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 09/788,847

Which is a:

☐ Continuation ☒ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 09/406,064

Which is a:

Which is a CIP of 09/358,972

☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 09/252,436

Which is a CIP of 09/042,287

Enclosed are:

Application Elements

1. ☒ Filing fee as calculated and transmitted as described below
2. ☐ Specification having _____ pages and including the following:
 - a. ☒ Descriptive Title of the Invention
 - b. ☒ Cross References to Related Applications (if applicable)
 - c. ☐ Statement Regarding Federally-sponsored Research/Development (if applicable)
 - d. ☐ Reference to Microfiche Appendix (if applicable)
 - e. ☒ Background of the Invention
 - f. ☒ Brief Summary of the Invention
 - g. ☐ Brief Description of the Drawings (if drawings filed)
 - h. ☒ Detailed Description
 - i. ☒ Claim(s) as Classified Below
 - j. ☒ Abstract of the Disclosure

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Application Elements (Continued)

3. ☐ Drawing(s) *(when necessary as prescribed by 35 USC 113)*
- a. ☐ Formal Number of Sheets _____
- b. ☐ Informal Number of Sheets _____
4. ☒ Oath or Declaration
- a. ☐ Newly executed *(original or copy)* ☒ Unexecuted
- b. ☐ Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional application only)*
- c. ☒ With Power of Attorney ☐ Without Power of Attorney
- d. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s) named in the prior application,
see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☒ Incorporation By Reference *(usable if Box 4b is checked)*
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under
Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby
incorporated by reference therein.
6. ☐ Computer Program in Microfiche *(Appendix)*
7. ☒ Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all must be included)*
- a. ☒ Paper Copy
- b. ☒ Computer Readable Copy *(identical to computer copy)*
- c. ☒ Statement Verifying Identical Paper and Computer Readable Copy

Accompanying Application Parts

8. ☐ Assignment Papers *(cover sheet & document(s))*
9. ☐ 37 CFR 3.73(B) Statement *(when there is an assignee)*
10. ☐ English Translation Document *(if applicable)*
11. ☐ Information Disclosure Statement/PTO-1449 ☐ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Acknowledgment postcard
14. ☒ Certificate of Mailing
- ☐ First Class ☒ Express Mail *(Specify Label No.):* EL706574770US

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Total Pages in this Submission

16. ☐ Additional Enclosures (*please identify below*):

--

An applicant who makes a request not to publish, but who subsequently files in a foreign country or under a multilateral international agreement specified in 35 U.S.C. 122(b)(2)(B)(i), must notify the Director of such filing not later than 45 days after the date of the filing of such foreign or international application. A failure of the applicant to provide such notice within the prescribed period shall result in the application being regarded as abandoned, unless it is shown to the satisfaction of the Director that the delay in submitting the notice was unintentional.

UTILITY PATENT APPLICATION TRANSMITTAL
(Large Entity)

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.
PRO-107.2

Total Pages in this Submission

Fee Calculation and Transmittal

CLAIMS AS FILED

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	28	- 20 =	8	x \$18.00	\$144.00
Indep. Claims	5	- 3 =	2	x \$80.00	\$160.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$710.00
OTHER FEE (specify purpose) _____					\$0.00
TOTAL FILING FEE					\$1,014.00

- ☒ A check in the amount of **\$1,014.00** to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge and credit Deposit Account No. _____ as described below. A duplicate copy of this sheet is enclosed.
- ☐ Charge the amount of _____ as filing fee.
 - ☐ Credit any overpayment.
 - ☐ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
 - ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).


Signature

Dated: August 7, 2001

cc:

CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10)Applicant(s): **John W. Shultz, Ryan J. Olson and Christine A. Andrews**

Docket No.

PRO-107.2Serial No.
Not AssignedFiling Date
August 7, 2001Examiner
Not AssignedGroup Art Unit
Not AssignedInvention: **PYROPHOSPHOROLYSIS AND INCORPORATION OF NUCLEOTIDE METHOD FOR NUCLEIC ACID DETECTION**I hereby certify that this **Utility Patent Appn, Unexecuted Declaration and Power of Attorney and Postcard**
(Identify type of correspondence)is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under
37 CFR 1.10 in an envelope addressed to: The Commissioner of Patents and Trademarks, Washington, D.C.20231-0001 on **August 7, 2001**
(Date)**Shannon L. Nebolsky**

(Typed or Printed Name of Person Mailing Correspondence)


(Signature of Person Mailing Correspondence)**EL706574770US**

("Express Mail" Mailing Label Number)

Note: Each paper must have its own certificate of mailing.

FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

Complete if Known

Application Number	Not Yet Assigned
Filing Date	Not Yet Assigned
First Named Inventor	John W. Shultz
Examiner Name	Not Yet Assigned
Group Art Unit	Not Yet Assigned
Attorney Docket No.	PRO-107.2 (6868/82379)

TOTAL AMOUNT OF PAYMENT \$1,014.00

METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number **23-0920**

Deposit Account Name

- ☒ Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17
- ☐ Applicant claims small entity status. See 37 CFR § 1.27

2. ☒ Payment Enclosed:
- ☒ Check ☐ Credit card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 710 201 355		Utility filing fee	710.00
106 320 206 160		Design filing fee	
107 490 207 245		Plant filing fee	
108 710 208 355		Reissue filing fee	
114 150 214 75		Provisional filing fee	
SUBTOTAL (1)			\$710.00

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
28	-20** = 8	18.00	144.00
Independent Claims	5 - 3** = 2	80.00	160.00
Multiple Dependent			

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
103 18 203 9		Claims in excess of 20	
102 80 202 40		Independent claims in excess of 3	
104 270 204 135		Multiple dependent claim, if not paid	
109 80 209 40		** Reissue independent claims over original patent	
110 18 210 9		** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) \$304.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130 205 65		Surcharge - late filing fee or oath	
127 50 227 25		Surcharge - late provisional filing fee or cover sheet	
139 130 139 130		Non - English specification	
147 2,520 147 2,520		For filing a request for <i>ex parte</i> reexamination	
112 920* 112 920*		Requesting publication of SIR prior to Examiner action	
113 1,840* 113 1,840*		Requesting publication of SIR after Examiner action	
115 110 215 55		Extension for reply within first month	
116 390 216 195		Extension for reply within second month	
117 890 217 445		Extension for reply within third month	
118 1,390 218 695		Extension for reply within fourth month	
128 1,890 228 945		Extension for reply within fifth month	
119 310 219 155		Notice of Appeal	
120 310 220 155		Filing a brief in support of an appeal	
121 270 221 135		Request for oral hearing	
138 1,510 138 1,510		Petition to institute a public use proceeding	
140 110 240 55		Petition to revive - unavoidable	
141 1,240 241 620		Petition to revive - unintentional	
142 1,240 242 620		Utility issue fee (or reissue)	
143 440 243 220		Design issue fee	
144 600 244 300		Plant issue fee	
122 130 122 130		Petitions to the Commissioner	
123 50 123 50		Processing fee under 37 CFR § 1.17(q)	
126 180 126 180		Submission of Information Disclosure Statement	
581 40 581 40		Recording each patent assignment per property (times number of properties)	
146 710 246 355		Filing a submission after final rejection (37 CFR § 1.129(a))	
149 710 249 355		For each additional invention to be examined (37 CFR § 1.129(b))	
179 710 279 355		Request for Continued Examination (RCE)	
169 900 169 900		Request for expedited examination of a design application	
Other fee (specify)			

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

SUBMITTED BY

Name (Print/Type)	Shannon L. Nebolsky	Registration No. (Attorney/Agent)	41,217	Telephone	(312)655-1500
Signature				Date	August 7, 2001

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on

Burden Hour Statement. This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Shultz et al.)
)
Serial No.: Not Yet Assigned) Attorney Docket:
) PRO-107.2
) 6868/82379
Filed: Not Yet Assigned)
)
For: PYROPHOSPHOROLYSIS AND) Art Group:
) Not yet assigned
INCORPORATION OF NUCLEOTIDE)
METHOD FOR ACID DETECTION)
)
Examiner: Not Yet Assigned)

STATEMENT UNDER 37 C.F.R. 1.821(e) and (f)

Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

Sir:

I hereby state that the enclosed computer readable form of the Sequence Listing (file: PRO107-2.app in ASCII format copied onto the accompanying diskette from PatentIn Ver. 2.0 on this date) and the paper copy of the Sequence Listing (pages 1 through 10) forming a part of the disclosure of the invention filed herewith on this day are identical.

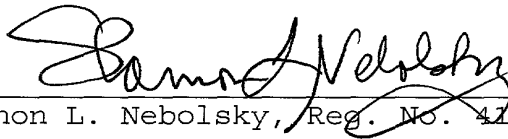
I hereby declare that all statements made herein of my own knowledge are true and that all statements made

Serial No.
Not Yet Assigned

-2-

on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,



Shannon L. Nebolsky, Reg. No. 41,217

Welsh & Katz, Ltd.
120 South Riverside Plaza
22nd Floor
Chicago, Illinois 60606
(312) 655-1500

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this Statement under 37 C.F.R. 1.821(e) and (f) together with the Patent Application and its stated enclosures is being deposited with the United States Postal Service with Express Mailing Label No. EL706574770US in an envelope addressed to: Box PATENT APPLICATION, Commissioner for Patents, Washington D.C. 20231 on August 7, 2001.

